**Writable CD's**

The Hi-End GIS workstations come equipped with internal CD-Writers which can make several different kinds of CD's. A CD can store around 400 times as much data as a floppy that makes it very useful. The CD-Writer will be used on a daily basis for backup. It will also be used for transferring data such as shapefiles that are sometimes too large for email. CD's are inexpensive relative to other storage media.

There are two types of CD's:

> **CD-R** – "R" is for "Recordable". CD-R's can be recorded only once and are somewhat cheaper than the other type. They usually come on a spindle of 50.
> Uses – Permanent data storage. Providing data to outside agencies.

> **CD-RW** – "RW" is for "Re-Writable". CD-RW's can be recorded, erased and rerecorded >1000 times. They often come packaged in a protective jewel box (plastic case).
> Uses – Rotational backups. Temporary data. Archiving files which could be updated.

In addition to the type of CD there also needs to be consideration made to the type of formatting for a CD.

The two types of CD formatting of concern to us are:

> **EasyCD** – Easy CD Creator is the software used to create a standard data CD which can be read in almost any computer CD-ROM drive. The Easy CD Creator must be started each time you want to copy files to CD. It takes two or three minutes for the CD-Writer to write a CD using Easy CD Creator.
> Advantages – The CD is readable in almost any computer.
> Disadvantages – A more lengthy and complicated process.
> Uses – Creating CD's which will be used with workstations not equipped with a CD-writer. Creating CD's for external entities.

> **DirectCD** – In order for a CD to function as a DirectCD it must be specially preformatted. It takes about 30 minutes to format a DirectCD on the new high-end GIS workstations. Once a CD has been formatted it does not need to be done again. A special program is not required to write to a DirectCD. Files may be conveniently written and deleted by drag and drop within Windows Explorer. It usually takes no more than a few seconds for the writing to be completed. Not all CD-ROM players are equipped to read this type of CD.
> Advantages – Quick and easy.
> Disadvantages – Must be preformatted. Not universally compatible.
> Uses – Rotational backup CD's. Exchanging CD's between FSA GIS sites.

Creating (writing to) a CD using Easy CD Creator

1. Double-click the "Create CD" icon on the desktop.
2. Click the "Data" option.
3. Click "Data CD".
4. The Easy CD Creator window appears. The upper half (Explorer) shows the contents of the workstation. The lower half of the window shows the files which are to be added to the CD. Navigate in the upper half of the screen to the files which are to be added and right-click/copy or simply drag them.
5. Right-click/paste or drag the file(s) to the lower-right window.
6. When finished adding files click the "Create CD" button on the toolbar.
7. Click "ok" at the "CD creation setup".
8. The system test will run for a minute or two.
9. Click "ok" when the window announces "CD created successfully".
10. Close out the window and do not save the layout. The CD can then be ejected.

Note: If you want to write additional data to a previously written CD the previous session must be imported. In Easy CD Creator go to *CD -> Import Session* and then start adding new files to the old ones.

Converting a standard, blank CD to DirectCD format

1. Double-click the "Create CD" icon on the desktop.
2. Click the "Data" option.
3. Click the "Direct CD" button.
4. Click "Next" in the next three boxes that pop up and then "Finish".
5. Click "ok" to begin formatting. It takes 27 minutes to format a DirectCD, but once it has been formatted it shouldn't need to be done again.

Creating (writing to) a DirectCD formatted CD

1. Simply drag and drop or cut and paste within Windows Explorer. The N: Drive is the CD-writer in the current configuration.